Pennsyl	vania Waterbodie	s Crossed by	the Project Wo	orkspace - Wat	erbodies Desktop Review	Only																						
MP a	County	Latitude	Longitude	Waterbody Name	Waterbody ID	FERC Class	Water Type	Stream Type	Chapter 93 Designated or Existing Use	Wild Trout	ATW	Upstream Drainage (acres)	Crossing Width	Acres Affected Cons. ROW	Acres Affected Perm.ROW	Instream Construction Period	Pipeline Crossing Method	Temporay Equip. Bridge	Alignment Sheet#	Est. Ac in Survey Area	Est. LF in Survey Area	Impact Type T or P	Stream Impact Centerline LF	FloodwayWidth	Floodway Ac Affected ConsROW	Floodway Acres Affected PermROW	Class of Aq Resources Sec10or404	Siltation Impaired Waterbodies
PennEa	st Mainline Route	Pipeline - De	laware River B				ı	ı	HO CWE						1	T	l Dry	ı	1000 02 04					ı			Coction	
14.7	Luzerne	41.232898	-75.751722	UNT to Little Bear Creek	S-SUR-025	Minor	RPW	Р	HQ-CWF, MF	-	-	<100	TBD	0.001	0.000	6/1 - 9/30	Dry Crossing	Yes	000-03-01- 030	TBD	TBD	Т	TBD	TBD	TBD	TBD	Section 404	No
21.8, AR-033	Luzerne	41.14844	-75.67744	Stony Run	PA-NHD-039	Int.	RPW	Р	HQ-CWF, MF	III	-	2000	TBD	TBD	0.000	6/1 - 9/30	N/A	Yes	000-03-03- 019	TBD	TBD	Т	TBD	TBD	TBD	TBD	Section 404	No
25.0, AR-034	Carbon	41.09944	-75.68344	UNT to Lehigh River	PA-NHD-040	Minor	RPW	Р	HQ-CWF, MF	III	-	339	9	0.013	0.000	6/1 - 9/30	N/A	Yes	000-03-03- 020	TBD	TBD	Т	32	TBD	TBD	TBD	Section 404	No
32.7, AR-038	Carbon	41.008571	-75.615349	UNT to Mud Run	S-SUR-044	Minor	RPW	Р	HQ-CWF, MF	Ш		<100	5	0.007	0.000	6/1 - 9/30	N/A	Yes	000-03-03- 024	TBD	TBD	Т	31	TBD	TBD	TBD	Section 404	No
36.1	Carbon	40.962319	-75.630037	Yellow Run	PA-NHD-049	Minor	RPW	Р	EV, MF	Ш	-	518.4	TBD	0.001	0.015	6/1 - 9/30	Dry Crossing	Yes	000-03-01- 073	TBD	TBD	Т	47	TBD	TBD	TBD	Section 404	No
41.1	Carbon	40.903089	-75.600813	UNT to White Oak Run	PA-NHD-060	Minor	RPW	I	EV, MF	III	-	76.8	TBD	0.008	0.020	6/1 - 9/30	Dry Crossing	Yes	000-03-01- 083	TBD	TBD	Т	87	TBD	TBD	TBD	Section 404	No
41.2	Carbon	40.903023	-75.599486	UNT to White Oak Run	PA-NHD-061	Minor	RPW	I	EV, MF	III	-	96	TBD	0.008	0.020	6/1 - 9/30	Dry Crossing	Yes	000-03-01- 083	TBD	TBD	Т	77	TBD	TBD	TBD	Section 404	No
41.2	Carbon	40.903023	-75.599486	UNT to White Oak Run	PA-NHD-063	Minor	RPW	I	EV, MF	III	-	56.32	TBD	0.008	0.020	6/1 - 9/30	Dry Crossing	Yes	000-03-01- 083	TBD	TBD	Т	82	TBD	TBD	TBD	Section 404	No
41.3	Carbon	40.902884	-75.596717	UNT to White Oak Run	PA-NHD-062	Minor	RPW	I	EV, MF	III	-	83.2	TBD	0.008	0.020	6/1 - 9/30	Dry Crossing	Yes	000-03-01- 083	TBD	TBD	Т	87	TBD	TBD	TBD	Section 404	No
41.6	Carbon	40.900781	-75.59228	White Oak Run	PA-NHD-056	Minor	RPW	Р	EV, MF	III	-	691.2	TBD	0.008	0.020	6/1 - 9/30	Dry Crossing	Yes	000-03-01- 084	TBD	TBD	Т	80	TBD	TBD	TBD	Section 404	No
44.8	Carbon	40.874296	-75.544352	UNT to Hunter Creek	PA-NHD-070	Minor	RPW	I	HQ-CWF, MF	III	-	<100	TBD	0.008	0.020	6/1 - 9/30	Dry Crossing	Yes	000-03-01-	TBD	TBD	Т	153	TBD	TBD	TBD	Section 404	No
53.3	Northampton	40.800925	-75.495437	UNT to Indian Creek	PA-NHD-080	Minor	RPW	I	CWF, MF	III	-	<100	TBD	0.008	0.020	6/1 - 9/30	Dry Crossing	Yes	000-03-01- 107	0.028	610	Т	103	TBD	TBD	TBD	Section 404	No
53.4	Northampton	40.799171	-75.494023	UNT to Indian Creek	S-SUR-081	Minor	RPW	Р	CWF, MF	III	-	<100	TBD	0.008	0.020	6/1 - 9/30	Dry Crossing	Yes	000-03-01- 107	0.109	474	Т	80	TBD	TBD	TBD	Section 404	No
53.4	Northampton	40.799074	-75.492816	UNT to Indian Creek	S-SUR-082	Minor	RPW	Р	CWF, MF	III	-	<100	TBD	0.008	0.020	6/1 - 9/30	Dry Crossing	Yes	000-03-01-	0.051	441	Т	91	TBD	TBD	TBD	Section 404	No
53.5	Northampton	40.798927	-75.491402	UNT to Indian Creek	S-SUR-083	Minor	RPW	Р	CWF, MF	III	-	<100	TBD	0.008	0.020	6/1 - 9/30	Dry Crossing	Yes	000-03-01-	0.044	385	Т	182	TBD	TBD	TBD	Section 404	No
54.3	Northampton	40.789877	-75.481262	Indian Creek	PA-NHD-084	Int.	RPW	Р	CWF, MF	III	ATW	1651	TBD	0.015	0.040	6/15 - 9/30	Dry Crossing	Yes	000-03-01- 109	0.163	474	Т	80	TBD	TBD	TBD	Section 404	No
55.9	Northampton	40.780614	-75.457989	Hokendauqua Creek	051215_JC_1002_P_IN	Int.	RPW	Р	CWF, MF	III	ATW, TS	5939.2	35	0.004	0.009	6/15 - 9/30	Dry Crossing	Yes	000-03-01- 112	0.122	250	Т	37	TBD	TBD	TBD	Section 404	No
55.9	Northampton	40.780618	-75.457848	UNT to Hokendauqua Creek	051215_JC_1001_D_MI	Minor	-	Ditch	CWF, MF	III	-	5939	5	0.002	0.006	6/15 - 9/30	Dry Crossing	Yes	000-03-01- 112	0.027	230	Т	67	TBD	TBD	TBD	Section 404	No
56.7	Northampton	40.771821	-75.44719	UNT to Hokendauqua Creek	PA-NHD-088	Minor	RPW	Р	CWF, MF	III	-	851.2	TBD	0.008	0.020	6/1 - 9/30	Dry Crossing	Yes	000-03-01- 114	0.133	447	Т	87	TBD	TBD	TBD	Section 404	No
58.5	Northampton	40.7552	-75.423024	UNT to Monocacy Creek	PA-NHD-089	Minor	RPW	I	HQ-CWF, MF	III	-	243.2	TBD	0.008	0.020	6/1 - 9/30	Dry Crossing	Yes	000-03-01- 117	0.114	495	Т	81	TBD	TBD	TBD	Section 404	No
60.3	Northampton	40.736966	-75.399418	Monocacy Creek	051215_JC_1005_P_IN	Int.	RPW	Р	HQ-CWF, MF	I, III	ATW, TS	2476.8	28	0.003	0.019	6/15 - 9/30	Dry Crossing	Yes	000-03-01- 121	0.104	428	Т	75	TBD	TBD	TBD	Section 404	No

Pennsylvania Waterbodies Crossed by the Project Workspace - Waterbodies Desktop Review Only																												
MP a	County	Latitude	Longitude	Waterbody Name	Waterbody ID	FERC Class	Water Type	Stream Type	Chapter 93 Designated or Existing Use	Wild Trout	MTA	Upstream Drainage (acres)	Crossing Width	Acres Affected Cons. ROW	Acres Affected Perm.ROW	Instream Construction Period	Pipeline Crossing Method	Temporay Equip. Bridge	Alignment Sheet #	Est. Ac in Survey Area	Est. LF in Survey Area	Impact Type T or P	Stream Impact Centerline LF	FloodwayWidth	Floodway Ac Affected ConsROW	Floodway Acres Affected PermROW	Class of Aq Resources Sec10or404	Siltation Impaired Waterbodies
62.3	Northampton	40.729042	-75.364381	UNT to East Branch Monocacy Creeka	PA-NHD-094	Minor	RPW	Р	HQ-CWF, MF	III	-	401.4	TBD	0.008	0.020	6/1 - 9/30	Dry Crossing	Yes	000-03-01- 125	0.019	408	Т	76	TBD	TBD	TBD	Section 404	No
66.9	Northampton	40.691944	-75.305705	UNT to Monocacy Creek	PA-NHD-098	Minor	RPW	ı	HQ-CWF, MF	III	-	83.2	TBD	0.008	0.020	6/1 - 9/30	Dry Crossing	Yes	000-03-01- 134	0.013	562	Т	94	TBD	TBD	TBD	Section 404	No
70.4	Northampton	40.650892	-75.28258	UNT to Lehigh River	S-SUR-100	Minor	RPW	Р	CWF, MF	-	-	1056	TBD	0.007	0.015	6/1 - 9/30	HDD	No	000-03-01- 141	0.067	361	Т	52	TBD	TBD	TBD	Section 404	No
70.9	Northampton	40.643027	-75.27928	Lehigh Canal	PA-NHD-104	Int.	RPW	Р	WWF	-	-	864000	66.9	0.000	0.076	6/1-11/30	HDD	No	000-03-01- 142	TBD	TBD	Т	TBD	TBD	TBD	TBD	Section 10/404	No
71.1	Northampton	40.64144	-75.28344	Lehigh River	PA-NHD-099	Major	TNW ^a	Р	WWF	-	-	864000	TBD	0.000	0.400	6/1-11/30	HDD	No	000-03-01- 143	3.006	410	Т	51	TBD	TBD	TBD	Section 10/404	Yes
72.2, AR-074	Northampton	40.62772	-75.270208	UNT to Bull Run	S-SUR-113(1)	Minor	RPW	Р	CWF, MF	Ш	-	<100	TBD	TBD	TBD	6/1 - 9/30	N/A	Yes	000-03-03- 051	TBD	TBD	Т	TBD	TBD	TBD	TBD	Section 404	No
72.2, AR-074	Northampton	40.628094	-75.269869	UNT to Bull Run	S-SUR-112	Minor	RPW	Р	CWF, MF	III	-	<100	TBD	TBD	TBD	6/1 - 9/30	N/A	Yes	000-03-03- 051	TBD	TBD	Т	TBD	TBD	TBD	TBD	Section 404	No
72.3	Northampton	40.626527	-75.269701	UNT to Bull Run	S-SUR-113(2)	Minor	RPW	Р	CWF, MF	Ш	-	<100	TBD	TBD	TBD	6/1 - 9/30	Dry Crossing	Yes	000-03-01- 145	0.110	955	Т	231	TBD	TBD	TBD	Section 404	No
72.6	Northampton	40.624342	-75.264564	UNT to Bull Run	S-SUR-115	Minor	RPW	Р	CWF, MF	Ш	-	<100	TBD	0.005	0.015	6/1 - 9/30	Dry Crossing	Yes	000-03-01- 146	0.107	477	Т	84	TBD	TBD	TBD	Section 404	No
72.6	Northampton	40.623635	-75.264036	UNT to Bull Run	S-SUR-117	Minor	RPW	Р	CWF, MF	Ш	-	<100	TBD	0.001	0.025	6/1 - 9/30	Dry Crossing	Yes	000-03-01- 146	0.110	393	Т	138	TBD	TBD	TBD	Section 404	No
N/A	Northampton	40.62984	-75.281285	Bull Run	PA-NHD-110	Int.	RPW	Р	CWF, MF	Ш	-	550	TBD	0.015	0.04	6/1 - 9/30	Dry Crossing	Yes	000-03-01- 229	0.123	446	Т	83	TBD	TBD	TBD	Section 404	No
76.5, AR-079	Bucks	40.594142	-75.211804	UNT to Cooks Creek	PA-NHD-120	Minor	RPW	Р	EV, MF	III	-	<100	TBD	TBD	0.000	6/1 - 9/30	N/A	Yes	000-03-03- 055	TBD	TBD	Т	31	TBD	TBD	TBD	Section 404	No

^a Milepost values calculated using station equations to relate current route to the route at the time of the September FERC submission.

FERC classifies waterbodies as any natural or artificial stream, river, or drainage with perceptible flow at the time of crossing, and other permanent waterbody" (Minor) includes all waterbodies less than or equal to 10 feet wide at the water's edge at the time of crossing; "intermediate waterbody" (Intermediate) includes all waterbodies greater than 10 feet wide but less than or equal to 100 feet wide at the water's edge at the time of crossing; and "major waterbody" (Major) includes all waterbodies greater than 100 feet wide at the water's edge at the time of crossing. FERC Classifications for NHD waterbodies were determined by measuring the distance of the waterbody at the crossing point using aerial photographs. If the stream was not visible on the aerial photograph the stream was designated as minor, with a crossing distance of "<10" feet. Classification may change based on conditions at time of construction.

5 Section 10 waters per Army Corps of Engineers Data (USACE, 2010), Section 404 Guidelines (USACE, 2011).

Key:

TNW* = Traditional Navigable Waters, including territorial seas. TNW also refers to Section 10 waters per Army Corps of Engineers data; all other waterbodies fall under Section 404 guidelines (USACE, 2010; USACE, 2011)

RPW = Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs

NRPW = Non-RPWs that flow directly or indirectly into TNWs

6 USGS National Hydrology Database (NHD) Data (USGS, 2014).

For NHD waterbodies, perennial/intermittent/ephemeral designations were assigned in the NHD data layer.

Key:

P = Perennial, I = Intermittent, E = Ephemeral

7 Pennsylvania Code Ch. 93 Designated Use (Pennsylvania Code 2014) and Pennsylvania Statewide Existing Use Classifications (PADEP 2014).

In instances where a stream has both a Designated Use and an Existing Use Designation, the Existing Use Designation is listed.

Kev:

EV = Exceptional Value Waters

HQ = High Quality Waters. Surface water that meets one or more to the conditions listed in 93.4b.

CWF = Cold Water Fishes. Maintenance or propagation, or both, to fish species including the family Salmonidae and additional flora and fauna, which are indigenous to a cold water habitat.

¹ Latitude and Longitude are in Decimal Degrees (dd) North American Datum (nad83).

² Waterbody names were based on United States Geological Service (USGS) National Hydrology Database (NHD) Data (USGS, 2014) and PA Code Ch. 93 data (PSIE, 2013).

³ Waterbody IDs were assigned based on USGS National Hydrology Database (NHD) Data (USGS, 2014) to the closest northern milepost.

⁴ Wetland and Waterbody Construction and Mitigation Procedures (FERC, 2013).

Pennsy	Pennsylvania Waterbodies Crossed by the Project Workspace - Waterbodies Desktop Review Only																											
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WWF = Warm Water Fishes. Maintenance and propagation to fish species and additional flora and fauna, which are indigenous to a warm water habitat.

MF = Migratory Fishes. Passage, maintenance, and propagation to anadromous and catadromous fishes and other fishes, which ascend to flowing waters to complete their life cycle.

- 8 Wild Trout Waters, Natural Reproduction, January 2015 (PFBC, 2015a), Wild Trout Waters (PFBC, 2015b), Class A Waters, December 2013 (PFBC, 2015c). Wild Trout Waters include:
- I = Class A Wild Trout Streams: Streams that support a population to naturally produced trout to sufficient size and abundance to support a long-term and rewarding sport fishery.
- II = Wilderness Trout Streams: Wilderness trout stream management is based upon the provision to a wild trout fishing experience in a remote, natural, and unspoiled environment where man's disruptive activities are minimized.
- III = Wild Trout Streams: Stream sections supporting naturally reproducing populations to trout. A wild trout stream section is a biological designation that does not determine how it is managed; therefore, these streams may also be stocked with hatchery trout by the Commission.
- 9 Approved Trout Streams (PFBC, 2015d).ATW = Approved Trout WatersTS= Trout Stocked Streams
- 10 Crossing width based on aerial photography for NHD waters and may vary at time to construction. Direct Impacts to waterbodies will be limited to the trenching activities associated with the installation to the pipeline. Trenches are typically less than 25 feet wide. Every attempt to preserve the integrity to the stream flow, bed, and banks outside to the trench will be undertaken.
- 11 Per FERC Guidelines, or State restrictions where more strict.
- 12 Dry crossing methods include: 1) Flumed Crossing and 2) Dam and Pump Crossing
- 13 The approximate crossing width is measured at the pipeline centerline and does not represent the width of the stream will not be crossed by the pipeline centerline, the crossing width provided is the average width of the stream within the Projects study area.
- 14 FERC stream classifications are based on FERC's "Procedures" definition of minor, intermediate and major waterbodies. Minor = waterbodies greater than 10 feet wide; Intermediate = waterbodies greater than 10 feet wide in the feet wide in the
- 15 Per Pennsylvania State Programmatic General Permit-4 (PASGP-4) (Revised September 29, 2015) definition for Linear Footage of Stream Impact, the linear footage of stream impact is whichever measurement is greater, the measurement from the upstream to downstream limits of work.
- *** Waterbody does not cross centerline. Crossing width measured along construction ROW.